

Remarks

This Response to Office Action is responsive to the Office Action mailed on June 13, 2005. Entry of this Response and reconsideration of the instant application in view thereof are respectfully requested.

Claims 1-10 are pending. Claims 1-10 are rejected. Claims 1 and 6 have been amended to more clearly define the invention. Claims 5 and 10 have been canceled because they have been incorporated into claims 1 and 6, respectively.

Claim Rejections under 35 U.S.C. §102 & 103(a)

Claims 1, 4, 6 and 9 stand rejected under 35 U.S.C. §102(b) as anticipated by Holy et al. (U.S. Patent No. 5,268,437). Applicants respectfully submit that Holy et al. neither teach nor disclose an aqueous composition comprising a polymer, having at least one ionic monomer and a nonionic surfactant monomer, formed in the presence of t-alkyl hydroperoxides, t-alkyl peroxides, t-alkyl peresters, and mixtures thereof.

Holy et al. disclose high temperature aqueous processes for the polymerization of monoethylenically unsaturated carboxylic monomers to produce low molecular weight, water-soluble polymer products useful as detergent additives, scale inhibitors, dispersants and crystal growth modifiers. Suitable monomers include acrylic acid, methacrylic acid, maleic acid, maleic anhydride, crotonic acid, and itaconic acid (see, Abstract), but not nonionic surfactant monomers, as claimed in Applicant's invention.

In the present invention, the nonionic surfactant monomer is used as a hydrophobically modified alkali soluble thickener. (Application, p. 14, lines 1-2). Applicants have found that the use of this thickener improves batch-to-batch reproducibility of thickening efficiency. (Application, p. 1, lines 19-24).

Holy et al. do not teach the use of their polymers as thickeners. Holy et al. mention that the control of viscosity (Holy et al., col. 1, lines 28 – 39) in some potential products of the process is desirable, but exemplifies only hydrogen peroxide, sodium persulfate, and t-butyl hydroperoxide (used as a comparative initiator in Example 1 of the Application). Thus, although Holy et al. mention a desire to control viscosity, Holy et al. fail to exemplify, or disclose a preference for, initiators of the class claimed in the current application. Accordingly, this rejection should be withdrawn.

Claims 2 and 3 stand rejected under 35 U.S.C. §102(b) as anticipated by or, in the

alternative, under 35 U.S.C. §103(a) as obvious over Holy et al. For the same reasons above and because Holy et al. provides no motivation to use the nonionic surfactant monomers as thickeners, Applicants respectfully submit that claims 2 and 3 are not anticipated by or, in the alternative, obvious over Holy et al. and request this rejection be withdrawn.

Claims 7 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Holy et al. For the same reasons above, Applicants request this rejection to be withdrawn.

Claims 5 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Holy et al. in view of Jenkins et al. (U.S. Patent No. 5,401,802). Although these claims have been canceled, the subject matter of these claims has been incorporated into claims 1 and 6. Applicants assert that the combination of Holy et al. and Jenkins et al. neither teaches nor discloses Applicant's invention.

Jenkins et al. disclose compositions having water-soluble polymers comprising hydrophobic segments. (See, Abstract). However, Jenkins et al. do not disclose anything that suggests that initiator selection is important to properties of these compositions. In light of the above arguments distinguishing Holy et al. and Jenkins et al. from Applicants' invention, Applicants respectfully request this rejection be withdrawn.

Claims 1, 4, 6 and 9 stand rejected under 35 U.S.C. §102(b) as anticipated by Kirk et al. (U.S. Patent No. 5,597,509). Applicants respectfully submit that Kirk et al. neither teach nor disclose an aqueous composition comprising a polymer, having at least one ionic monomer and a nonionic surfactant monomer, formed in the presence of t-alkyl hydroperoxides, t-alkyl peroxides, t-alkyl peresters, and mixtures thereof.

Kirk et al. disclose a polymer product is formed from about 3 to about 50 weight percent of at least one monoethylenically unsaturated dicarboxylic acid monomer, from about 50 to about 97 weight percent of at least one monoethylenically unsaturated monocarboxylic acid monomer, and from 0 to about 40 weight percent of one or more carboxyl-free monoethylenically unsaturated monomers. (See, Abstract). However, Kirk et al. do not disclose surfactant monomers. Kirk et al. do not even mention of the use of their polymer products as thickeners or the need for consistent viscosity in their uses.

Kirk et al. cite broad classes of initiators, including t-amyl hydroperoxide. However, Kirk provides no motivation to explore any specific subset of initiators in relation to thickeners, and in fact, teaches away from using t-amyl in specifically stating preference for persulfates as initiators (col. 7, lines 5-7). In light of the above, Applicants request this rejection be withdrawn.

Claims 2 and 3 stand rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Kirk et al. For the same reasons above, Applicants respectfully submit claims 2 and 3 are not anticipated by or, in the alternative, obvious over Kirk et al. and request this rejection be withdrawn.

Claims 7 and 8 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Kirk et al. For the same reasons above, Applicants request this rejection be withdrawn.

Claims 5 and 10 stand rejected under 35 U.S.C. §103(a) as unpatentable over Kirk et al. in view of Jenkins et al. Since this prior art has been addressed above and claims 5 and 10 have been canceled, Applicants request this rejection be withdrawn.

Conclusion

In view of the above remarks, Applicants believe that the pending claims are in condition for allowance, and early and favorable action is earnestly solicited.

This Paper is believed to be timely filed and that no additional fees are due. However, if any additional fee is deemed required for consideration of this Response, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 18-1850.

Respectfully submitted,



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